

Claims

[c1] I claim:

1. The streamlined electrolyzer is comprised of the following components: the input valve [1]; the reaction chamber [2]; the liquid/gas filter [3]; the product chamber [4]; the output valve [5]; the absorbent material [6]; and the conductive element [7].

[c2] 2.The streamlined electrolyzer will product hydrogen and oxygen gases according the method in patent number 6,033,549 with distinctions as follows: the streamlined electrolyzer will not separate hydrogen and oxygen gasses from one another; the streamlined electrolyzer doesn't contain components for the individual transportation of hydrogen or oxygen gasses; and the streamlined electrolyzer doesn't contain components for the storage of hydrogen and oxygen gasses individually.

[c3] 3. The streamlined electrolyzer possesses componential distinction in relation to coexisting electrolyzer patents as follows: The streamlined electrolyzer doesn't include individual anode and cathode components for the separation of hydrogen and oxygen gasses from one another; the streamlined electrolyzer doesn't include components

for the individual transport of hydrogen from oxygen gas; and the streamlined electrolyzer doesn't contain components that are for the individual storage of hydrogen from oxygen gas.

- [c4] 4. The streamlined electrolyzer contains an input valve [1] with the following attribute; insulation is required to prevent unintended current transfer.
- [c5] 5. The streamlined electrolyzer contains an output valve [5] with the following attribute; insulation is required to prevent unintended current transfer.
- [c6] 6. The streamlined electrolyzer contains a reaction chamber [2].
- [c7] 7. The input valve [1] penetrates the reaction chamber [2].
- [c8] 8. The input valve [1] transfers conductive water into the reaction chamber [2].
- [c9] 9. The streamlined electrolyzer contains a conductive element [7].
- [c10] 10. The conductive element [7] penetrates the reaction chamber [2].
- [c11] 11. Alternating current is applied to the conductive ele-

ment [7].

- [c12] 12. The conductive element [7] transfers the applied alternating current into the conductive water within the reaction chamber [2] inducing an electrolytic reaction.
- [c13] 13. Hydrogen and oxygen gasses are produced in the reaction chamber [2].
- [c14] 14. The streamlined electrolyzer contains a liquid/gas filter [3] that is comprised of microporous hollow tubes with the following attributes; they are permeable to hydrogen and oxygen gasses, and are impermeable to conductive water, which is achievable by sizing the diameter of the microporous hollow tubes to 15 Pico meters.
- [c15] 15. The liquid/gas filter [3] is connected to the reaction chamber [2].
- [c16] 16. Hydrogen and oxygen gasses within the reaction chamber [2] will be forced to permeate the liquid/gas filter [3] by increasing pressure associated with the accumulating hydrogen and oxygen gasses produced by the electrolytic reaction.
- [c17] 17. The streamlined electrolyzer contains a product chamber [4].
- [c18] 18. The product chamber [4] is connected to the oppos-

ing side of the liquid/gas filter [3] in consideration of the connection in claim 15.

- [c19] 19. Water reformation within the product chamber [4] will be dealt with as follows: absorbent material [6] occupies space within the product chamber [4] to absorb recombinant water and transfers it to an exterior location.
- [c20] 20. The output valve [5] penetrates the product chamber [4].
- [c21] 21. The output valve [5] transfers hydrogen and oxygen gasses out of the product chamber [4] into the exterior environment.